Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Comparison of the effect of intravenous ketorolac and paracetamol on pain after coronary artery bypass graft surgery

Protocol summary

Study aim
The effect of intravenous ketorolac and paracetamol on pain after coronary artery bypass graft surgery

Design
In this study 60 patients undergoing CaBG in Ahwaz Golestan Hospital will be randomly divided into 2 groups of 30 each based on randomized number table. All patients are monitored routine electrocardiography, pulse oximetry, invasive blood pressure measurement, expiratory carbon dioxide intake will be performed. They will receive the same drugs for induction and maintenance of anesthesia . After end of surgery and transfer to intensive care unit ,necessary monitoring ECG, IBP, Pulse Oximeter will be attached,thereafter the first group received 10 mg / kg of paracetamol diluted in 100 ml normal saline within 30 minutes, every 6 hours to 24 hours and in the second group 0.5 mg / kg diluted ketorolac in 100 cc normal saline within 30 minutes, every 6 hours to 24 hours

Settings and conduct
60 patients undergoing CABG in Ahwaz Golestan Hospital will be randomly divided into 2 groups of 30 each based on randomized number table. Kurdish. After the surgery is over and transferred to the intensive care unit The first group received 10 mg / kg of paracetamol and in the second group 0.5 mg / kg diluted ketorolac diluted in 100 ml normal saline within 30 minutes, every 6 hours to 24 hours

Participants/Inclusion and exclusion criteria
Inclusion criteria: age 30-70 years Candidate for coronary artery bypass Exclusion criteria: gastrointestinal disease, kidney disease, liver disease, ejection fraction <30%, off-pump surgery

Intervention groups
The first group received 10 mg / kg paracetamol diluted in 100 ml normal saline within 30 minutes, every 6 hours to 24 hours. The second group received 0.5 mg / kg diluted ketorolac 100 cc normal saline within 30 minutes, every 6 hours to 24 hours

Main outcome variables
Age Sex Temperature Breath rate heart beat blood pressure The amount of pain

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20180909040979N4**
Registration date: **2019-09-12, 1398/06/21**
Registration timing: **prospective**

Last update: **2019-09-12, 1398/06/21**
Update count: **0**

Registration date
2019-09-12, 1398/06/21

Registrant information

Name
MARYAM ZAMANKHANI

Name of organization / entity

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Iran (Islamic Republic of)

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+98 61 3336 4760

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-09-23, 1398/07/01

Expected recruitment end date
2019-12-22, 1398/10/01

Actual recruitment start date
empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of intravenous ketorolac and paracetamol on pain after coronary artery bypass graft surgery

Public title

Comparison of the effect of intravenous ketorolac and paracetamol on pain

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age between 30 and 70 years Candidate for coronary artery bypass graft

Exclusion criteria:

Gastrointestinal Disease Kidney disease Liver disease EF<30% Off pump surgery

Age

From **30 years** old to **70 years** old

Gender

Both

Phase

2-3

Groups that have been masked

- Participant
- Care provider
- Investigator

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

According to the random number table, they will be divided into two groups of 30 people

Blinding (investigator's opinion)

Double blinded

Blinding description

Participants, principal investigator, intensive care nurses responsible for patient care blind to study

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Ahvaz University of Medical Sciences

Street address

Ahvaz Jundishapur University of Medical Sciences., Research Deputy.,Blvd. Golestan

City

Ahvaz

Province

Khouzestan

Postal code

6193673166

Approval date

2019-04-27, 1398/02/07

Ethics committee reference number

IR.AJUMS.REC.1398.050

Health conditions studied

1

Description of health condition studied

Coronary artery bypass graft

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Postoperative pain control

Timepoint

0, 6, 12 and 24 hours after extubation

Method of measurement

VAS

2

Description

Arterial oxygen saturation drop

Timepoint

0, 6, 12 and 24 hours after extubation

Method of measurement

Yes or no

3

Description

Blood pressure changes

Timepoint

0, 6, 12 and 24 hours after extubation

Method of measurement

Three groups: mild to moderate

4

Description

Chest tube discharge

Timepoint

0, 6, 12 and 24 hours after extubation

Method of measurement

The volume of discharge

Secondary outcomes

1

Description
arrhythmia
Timepoint
0, 6, 12 and 24 hours after exteubation
Method of measurement
monitoring

2

Description
Duration of ventilator dependence
Timepoint
0, 6, 12 and 24 hours after exteubation
Method of measurement
Duration of respiratory support

Intervention groups

1

Description
Intervention group: Intervention group: Paracetamol 10mg / kg diluted in 100 ml of normal saline for 30 minutes every 6 hours up to 24 hours
Category
Treatment - Drugs

2

Description
Intervention group: and in the second group 0.5 mg / kg diluted ketorolac in 100 ml of normal saline for 30 minutes, every 6 hours up to 24 hours.
Category
Treatment - Drugs

Recruitment centers

1

Recruitment center
Name of recruitment center
Golestan Hospital
Full name of responsible person
Fatemeh Javaherforoosh zadeh
Street address
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Ahvaz University of Medical Sciences
Full name of responsible person
Mohammad Badavi, PhD
Street address
Deputy of Research, Ahvaz Jundishapur University of Medical Sciences, Golestan Blvd.
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mbadavi@ajums.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Ahvaz University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact
Name of organization / entity
Ahvaz University of Medical Sciences
Full name of responsible person
Fatemeh Javaherforoosh zadeh
Position
Associate professor
Latest degree
Subspecialist
Other areas of specialty/work
Anesthesiology
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available